



# AAP IMMUNIZATION INITIATIVES NEWSLETTER

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## Links to AAP Resources:

- [AAP Immunization Web site](#)
- [The Bookstore](#)
- [Red Book Online](#)

*The Childhood Immunization Support Program (CISP) is a cooperative agreement between the CDC and AAP. (Cooperative Agreement: U66/IP000400-03)*



## Updates and Alerts



### ➤ **US Food and Drug Administration (FDA) Approves New Combination Vaccine for Infants and Children**

The FDA has approved the combination vaccine MenHibrix by GlaxoSmithKline. MenHibrix is for infants and children 6 weeks through 18 months of age for the prevention of invasive disease caused by *Neisseria meningitidis* serogroups C and Y, and *Haemophilus influenzae* type b (Hib). If recommended by the Centers for Disease Control and Prevention (CDC) Advisory Committee on Immunization Practices (ACIP), this new vaccine will be given as a 4-dose series at ages 2, 4, 6, and 12 through 15 months of age. For more information, visit:

<http://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm308350.htm>.

### ➤ **Fewer young women are completing the Human Papillomavirus (HPV) Vaccine Series**

A recent study in the journal *Cancer* found that from 2006 to 2009 rates of women completing HPV 3-dose series, after receiving an initial dose, has dropped from 50% to 22%. The study also noted that those who received the vaccine in a clinic were more likely to complete the series than those who received it from a pediatrician. To read the article, visit:

<http://well.blogs.nytimes.com/2012/05/07/fewer-young-women-complete-hpv-vaccine/>.

### ➤ **CDC Finds Some Children Not Receiving Proper Dose Schedule for Pneumococcal Vaccine (PCV13)**

As recently published in *Pediatric News*, the CDC discovered that many children were not receiving the appropriate number of doses of PCV13. Often, these children are not receiving a supplemental dose of PCV13 after completing PCV7, or not receiving a fourth dose of PCV13 as recommended by the schedule. Providers are asked to remember to vaccinate children according to the schedule:

<http://aapredbook.aappublications.org/site/resources/IZSchedule0-6yrs.pdf>.

### ➤ **Vaccination Rates in Teens Higher in States With Middle School Requirements**

Researchers from the CDC found that teenagers in states with vaccination requirements for middle school have higher rates of vaccination with meningococcal (MCV4) and tetanus, diphtheria, pertussis (Tdap) vaccines. Their study used data from the 2008-2009 National Immunization Survey-Teen. Some states require education about the vaccines, but educational requirements did not increase immunization rates. The study appears in the journal *Pediatrics*. Access this study at: <http://pediatrics.aappublications.org/content/129/6/1056.full> (login required).

### ➤ **American Academy of Pediatrics (AAP)**

#### **AAP Endorses World Health Organization (WHO) Recommendation to Retain Use of Thimerosal**

The AAP has endorsed a recommendation by the WHO Strategic Advisory Group of Experts on Immunization that the preservative thimerosal be retained for use in the global vaccine supply. View the AAP News article at:

<http://aapnews.aappublications.org/content/early/2012/06/01/aapnews.20120601-1>.

#### **AAP Among Newest Partners of the Measles & Rubella Initiative**

The AAP, the International Pediatric Association (IPA) and Sabin Institute recently became partners in an initiative to reduce global measles mortality by 95% by 2015 compared with 2000 levels and eliminate measles and rubella in at least five of the six WHO regions by 2020. For more information on this initiative, read the AAP News article at:

<http://aapnews.aappublications.org/content/33/6/25.full>.

## Upcoming Events

### ➤ **Vaccine Update Webinar Series** **September 12, 2012 & November 14, 2012** **Online Webinar**

The Children's Hospital of Philadelphia offers vaccine Webinars to update health providers on vaccine issues. For more information, and to register when available, visit:

<http://www.chop.edu/professionals/vaccine-healthcare-providers/vaccine-webinar-series/vaccine-webinar-series.html>.

## Recent Events

### ➤ **Advisory Committee on Immunization Practices (ACIP)** **June 20-21, 2012**

**CDC, Tom Harking Global Communication Center**  
**Building 19, Room 232, Atlanta, GA**

The role of ACIP is to provide advice that will lead to a reduction in the incidence of vaccine-preventable diseases in the US, and an increase in the safe use of vaccines and related biological products. Topics for discussion at the June meeting included: pneumococcal, influenza, pertussis, meningococcal disease, vaccine supply, HPV, measles mumps rubella (MMR), and more. When meeting minutes are available later this summer, find them at: <http://www.cdc.gov/vaccines/recs/acip/meetings.htm#min>.

## Resources

### ➤ **Vaccine Information Statements (VIS)** **CDC Releases New VIS for Typhoid Vaccine**

CDC now recommends that healthcare providers wait at least three days before administering live, oral typhoid vaccine to patients who have received certain antibiotics. Previously, healthcare providers were advised to wait 24 hours. Access this new VIS at: <http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-typhoid.pdf>.

### **CDC Releases New VIS for MMR Vaccine**

CDC made minor wording changes throughout. Changes include:

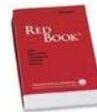
- A note stating that children younger than 12 months who are traveling overseas should get a dose of MMR vaccine.
- A note asking the patient to tell his/her provider if they received another vaccine within the past 4 weeks.
- A statement that minor problems usually occur 6-14 days after the shot, rather than 7-12 days.
- A box noting the risk of adverse events following measles, mumps, rubella, and varicella (MMRV) vaccine was removed, as it is not relevant for patients receiving MMR.

This VIS was the first to feature a two-dimensional barcode, which will allow providers to scan selected information into the patient's record or into an immunization information system. Access this new VIS at: <http://www.cdc.gov/vaccines/pubs/vis/downloads/vis-mmr.pdf>.

### **Immunization Action Coalition (IAC) Offers Translations of the Hepatitis B Vaccine VIS in 5 New Languages**

IAC recently posted translations of the hepatitis B vaccine VIS in Armenian, Farsi (spoken in Iran and United Arab Emirates), Hmong, Korean, and Tagalog. IAC thanks the California Department of Public Health, Immunization Branch, for the translations. To access these translations, along with others, visit: <http://www.immunize.org/vis/>.

## Red Book Online



### **New 2012 Edition of Red Book now on Red Book Online**

The newly revised and updated *Red Book: 2012 Report of the Committee on Infectious Diseases*, 29th Edition is now available on *Red Book Online*. *Red Book 2012* is the go-to resource for the most current information on infectious diseases, including epidemiology, diagnosis, treatment, and therapy, as well as vaccine and drug recommendations, tables, resources, and much more.

View the Summary of Major Changes (<http://aapredbook.aappublications.org/content/1/SEC7.body>) on *Red Book Online* (<http://aapredbook.aappublications.org/>) to quickly see all the new and updated content in *Red Book 2012*.

*Red Book Online*, the online version of the authoritative guide to pediatric infectious diseases, provides important updates between editions of the *Red Book*. Among the regularly updated features on *Red Book Online* is the "Vaccine Status Table" at <http://aapredbook.aappublications.org/site/news/vaccstatus.xhtml>.

## Featured Research Findings

### Effectiveness and Net Cost of Reminder/Recall for Adolescent Immunizations

Christina A. Suh, MD, Alison Saville, MSPH, MSW, Matthew F. Daley, MD, Judith E. Glazner, MS, Jennifer Barrow, MSPH, Shannon Stokley, MPH, Fran Dong, MS, Brenda Beaty, MSPH, L. Miriam Dickinson, PhD, and Allison Kempe, MD, MPH

Many pediatricians identify immunizing adolescents as a challenge. Adolescents are less likely than younger children to come in for regular well-care office visits. Researchers in metropolitan Denver studied the effectiveness of a reminder/recall system for immunizing adolescents, and described the costs and revenues associated with it. Authors selected 4 suburban private practice pediatrician offices, which were studied from February 2008 to August 2009. The 4 practices were participants in the Colorado Immunization Information System (CIIS) and shared a common billing system. The study population included adolescents aged 11 to 18 years who had been seen in the practice at least once in the previous 2 years, and who needed 1 or more of the targeted adolescent vaccines (Tdap, MCV4, and HPV).

The reminder/recall intervention included 2 letters on practice letterhead, each followed by an autodialer telephone call that was scripted with the help of the practices. The second round of letters and calls occurred 1 month after the first round, if the adolescent hadn't responded. Eight hundred patients were selected to receive this intervention. The control group also included 800 patients who did not receive either a letter or an autodialer call. Researchers allowed families receiving the first letter to call and opt out of a follow-up for reasons including: they did not want the patient to receive the vaccine, the patient had already received the vaccine, the patient already had an appointment to receive the vaccine, or the parent did not wish to receive additional reminders.

The baseline up-to-date rate averaged 40.3% among the 4 practices. Three of the 4 practices saw a significant increase (15-20%) in adolescents receiving at least one of the targeted vaccines in the intervention group, compared to the controls. Further, the same 3 of 4 practices saw a higher percentage of adolescents (10-19%) receiving all targeted vaccines in the intervention group compared to controls. In the fourth practice, researchers discovered high staff turnover and miscommunication about the reminder/recall system among front desk staff causing cross-contamination between the study and control groups.

A cost analysis of the intervention showed that the three practices in the intervention group whose immunization rates improved experienced a positive net variance for the study. Overall, this study showed that a reminder/recall intervention improved adolescent immunization and well-care visits rates, as well as revenue in pediatric practices.

*Pediatrics* Vol. 129, No. 6 Pages e1437 -e1445.

<http://pediatrics.aappublications.org/content/129/6/e1437>

# Special Section

## Office of the Inspector General (OIG) Report Vaccines for Children Program: Vulnerabilities in Vaccine Management

In June 2012, the OIG released findings showing that Vaccines for Children (VFC) providers were not managing their vaccine inventory properly. Of note, vaccine product at 76% of tested sites was being stored at temperatures that were out of range for at least 5 hours over a two-week period. This leads to some concerns that vaccine potency and/or efficacy may have been reduced. Steps should be taken in all pediatric offices to ensure that vaccines are stored properly.

### Key Points to remember:

- The CDC and AAP believe that vaccines are one of the most successful public health advances of our times, and strongly support their continued delivery
- Vaccines were not found to be unsafe
- Re-vaccination of children is not necessary
- The AAP encourages practices to continue monitoring vaccine storage and handling according to VFC guidelines, and when necessary, take steps to remain in compliance with those guidelines

### Quick Tips for Storage and Handling of Vaccines:

- Rotate stock so that earliest dated vaccines are used first
- Do not store food or drinks in the vaccine freezer or refrigerator
- Freezer must have a separate external door; dormitory-type refrigerators are not allowed
- Designate a minimum of 2 employees in charge of handling and storage
- Store vaccines in the middle of the freezer and/or refrigerator, not in the door
- Post a sign on the door to indicate which vaccines are to be stored in the refrigerator and which should be stored in the freezer
- Always keep a calibrated thermometer in both the refrigerator and freezer
- Keep containers of water in the refrigerator to help maintain cold temperatures
- Store ice packs in the freezer to help maintain cold temperatures
- Post a “Do Not Unplug” sign by the outlet to the freezer and refrigerator
- Contact the state health department or VFC grantee for instructions on how to dispose of or return expired vaccines
- Develop a backup plan in case of power outages or equipment failure

Vaccine	Store in:	Temperature range	Store diluent:
MMR lyophilized vaccine	Refrigerator or freezer	-58°F and +46°F (-50° and +8°C)	In refrigerator between 35°F and 46°F (2°C and 8°C) OR At room temperature between 68°F and 77°F (20°C and 25°C). <b>Do not freeze or expose to freezing temperatures</b>
MMRV or varicella lyophilized vaccine	Freezer	-58°F and +5°F (-50°C and -15°C)	In refrigerator between 35°F and 46°F (2°C and 8°C) OR At room temperature between 68°F and 77°F (20°C and 25°C). <b>Do not freeze or expose to freezing temperatures</b>
Other childhood vaccines	Refrigerator	35°F and 46°F (2°C—8°C)	For information on specific diluents, visit: <a href="http://www.cdc.gov/vaccines/recs/storage/guide/vaccine-storage-handling.pdf">http://www.cdc.gov/vaccines/recs/storage/guide/vaccine-storage-handling.pdf</a>

## Resources to help practices safely store vaccines:

- AAP Immunization Training Guide & Practice Procedure Manual (AAP)  
<http://www2.aap.org/immunization/pediatricians/trainingguide.html>
- Vaccine Storage and Handling Guide (CDC)  
<http://www.cdc.gov/vaccines/recs/storage/guide/default.htm>
- Video guidance for proper storage and handling of vaccines (CDC)  
<http://streaming.cdc.gov/vod.php?id=7c017abff7e066f7f201658db547401920120420084300750>
- Vaccine Storage Temperature Recommendations (CDC)  
<http://www.cdc.gov/vaccines/pubs/pinkbook/downloads/appendices/C/vax-storage-temps.pdf>
- Refrigerator Buying Guide (California Department of Public Health)  
<http://eziz.org/assets/docs/IMM-940.pdf>
- Setting Up Your Refrigerator and Freezer for Vaccine Storage (California Department of Public Health)
  - Refrigerator: <http://eziz.org/assets/docs/IMM-962.pdf>
  - Freezer: <http://eziz.org/assets/docs/IMM-965.pdf>
- Storing Vaccines in Your Refrigerator and Freezer (California Department of Public Health)
  - Refrigerator: <http://eziz.org/assets/docs/IMM-963.pdf>
  - Freezer: <http://eziz.org/assets/docs/IMM-966.pdf>
- Temperature Logs for Vaccines (IAC)
  - Fahrenheit: <http://www.immunize.org/catg.d/p3039f.pdf>
  - Celsius: <http://www.immunize.org/catg.d/p3039c.pdf>
- Transporting Refrigerated Vaccines (California Department of Public Health)  
<http://eziz.org/assets/docs/IMM-983.pdf>
- Don't Be Guilty of These Errors in Storage & Handling (IAC)  
<http://www.immunize.org/catg.d/p3036.pdf>
- Checklist for Safe Vaccine Storage and Handling (IAC)  
<http://www.immunize.org/catg.d/p3035.pdf>
- Emergency Response Worksheet (IAC)  
<http://www.immunize.org/catg.d/p3051.pdf>

## For more information

To view the report, the AAP press release, AAP speaking points, or more information on the VFC program, visit:

- OIG Vaccines for Children Program: Vulnerabilities in Vaccine Management  
<http://oig.hhs.gov/oei/reports/oei-04-10-00430.asp>
- AAP Press Release:  
<http://tinyurl.com/79wha6t>
- AAP Speaking Points for Members (login required)  
<http://tinyurl.com/7u8djna>
- CDC VFC page  
<http://www.cdc.gov/vaccines/programs/vfc/default.htm>
- CDC VFC Operations Guide  
<http://www.cdc.gov/vaccines/programs/vfc/default.htm>

# Pediatrics in Practice

## Best Practices! We Asked, You Answered

In February 2012, CISP asked its IZNews Listserv® to respond to the following questions based on the National Vaccine Advisory Committee Standards (NVAC). Below are the results.

NVAC Standard #10: How does your practice ensure that, whenever possible, immunization appointments are scheduled along with other appointments to prevent missed opportunities?

<b>Best Practice:</b>	<b>What our clinicians are doing:</b>
Use the state or local registry to check for vaccinations that could be given at each visit.	<p>We try (but are not perfect) to look up each patient in the state registry because the forecaster there is better than anything we have in our electronic medical record (EMR).</p> <p>In Indiana we have the Children and Hoosiers Immunization Registry Program (CHIRP) registry. Every day we run the CHIRP forecast for every child that is to be seen the next day, no matter the reason. The forecast is given to the medical provider as the provider enters the exam room, and the medical assistants (MAs) are already prepared that there will be vaccines needed.</p> <p>Our staff is required, at every patient encounter, to check the Wisconsin Immunization Registry (WIR). Built into the system is the recommended vaccine schedule which notifies the clinician which vaccine is due when. It is now an expectation that each nurse or MA checks WIR at every patient visit.</p> <p>Our computerized registry has a 'recommend' function based on childhood schedule, and this is patient-specific based on the child's age and prior vaccine history, so it functions as the standing order for routine vaccination.</p>
Keep patients coming back by scheduling their next visit while they're in the office.	We make sure patients schedule all needed well-visit appointments on their way out of their last clinic appointment. We also call to remind them of scheduled appointments.
Take every opportunity that a patient is in the office to immunize him/her if appropriate.	<p>We check every time we see a patient if he/she is up-to-date. We constantly add on vaccines to other appointments. If you're in the office, you may get immunized - siblings too.</p> <p>We strive to avoid missed immunization opportunities by vaccinating at all visits (provided there is not a precaution/contraindication). Standard work by nursing staff includes use of the child/teen screening questionnaire, and if no precautions/contraindications exist the child may be vaccinated. Any affirmative answers to the screening questionnaire are referred to the provider for determination of vaccination at that visit. Our sites also offer nurse visits for immunizations only in the event there was a missed opportunity and a child needs catching up.</p> <p>During school-age immunizations, the nursing staff reviews the child's immunization history with the parents and if they notice that another vaccine could be administered at the current visit to bring the child up-to-date, they will encourage the parent to have the child receive it at that time.</p>
Offer immunization-only appointments to increase accessibility.	We let the parent know at each appointment when their next visit is scheduled for and when immunizations are due. We encourage parents to schedule appointments for these immunizations. We also offer an immunization-only appointment for parents that have special schedules or when vaccines could not be administered because of a contraindication, such as an illness.
Review patient records to check for skipped or missed immunizations.	The clients in our registry are constantly being reviewed to confirm appointments, and to provide information for which vaccines their children are due. If an appointment is missed, contact is made to reschedule. A note is put in the client's folder to ensure all necessary vaccines are given.

## Pediatrics in Practice (cont.)

NVAC Standard #12: What system does your practice use to ensure that all vaccinations are recorded, and that parents or patients are properly notified when vaccinations are due?	
Best Practice:	What our clinicians are doing:
Review patient records for missed vaccines, recall those who are missing any.	We pull reports of all 2 year olds and then again at age 13. Any that are not up-to-date are called and encouraged to come in to be updated.
Maintain procedures and/or proper documentation tools for all steps associated with immunizing a patient.	<p>We have standard protocols for ordering, administering, and recording. We are still struggling with tracking kids who are behind on vaccines and checkups. We lose kids who move a lot. An EMR will help.</p> <p>As written in our immunization policy and procedure manual, a copy of all record-keeping forms and instructions are listed to record all vaccines, and the data entry procedure for the New Jersey Immunization Information System is also described. A letter describing needed vaccines is sent to clients with an appointment date and time. A reminder phone call is also made 1-2 days prior to their appointment date to help ensure compliance.</p> <p>We have a single sheet of paper with all the vaccines that we give with the name of the vaccine, manufacturer, lot number, expiration, dose, site of injection, route, signature/initials of giver, and VIS dates. At the bottom of the page the vaccines are listed and we circle the ones being given for that day. We have a line below that to write in the patient's name and birth date and registry number. We use this to be sure all the vaccines are recorded. Cards are sent out based on the immunization registry when vaccines are due or past due.</p>
Make use of tools/functions offered in your state's registry.	<p>We use the reminder/recall function of the registry.</p> <p>We use the immunization network for our state (Arkansas) and verify all vaccines prior to appointments and update the network after all appointments.</p> <p>We use a reminder/recall functionality within the registry regarding overdue vaccinations (&lt; 1 y/o receives card if 1 month or more overdue; 1-2 y/o receives card if 2 months or more overdue; school-based health centers receive lists of patients coming due or overdue). This occurs monthly from our centralized immunization program offices and is distributed to immunization champions at the sites.</p> <p>We use an immunization registry throughout our integrated agency (community health clinics, school-based health clinics, inpatient hospital, county or public health department) for recording of vaccinations given. Information from our registry is further transferred to the state immunization registry on a daily basis.</p>



Got an idea about a topic you'd like us to cover?

Contact us at [cispimmunize@aap.org](mailto:cispimmunize@aap.org)